U.S. Amines
An AdvanSix company.

Tri-n-Propylamine

CHEMICAL INTERMEDIATES

DESCRIPTION

Tri-n-Propylamine is a colorless liquid with an ammonia-like odor. It is slightly soluble in water. It is stable under recommended storage conditions. It can burn when heated or exposed to an ignition source. Used to synthesize carbon nanotubes for research purposes and it can also be used as a solvent.

PHYSICAL AND CHEMICAL PROPERTIES

TYPICAL PROPERTIES	SPECIFICATIONS
CAS Number	102-69-2
EC Number	203-047-7
Formula	$C_9H_{21}N$
Molecular Weight	143.27 g/mol
Physical State	Liquid
Explosive Limits (LEL, UEL)	0.7 % (LEL) 5.6 (UEL) (source USCG 1999)
Flash Point (C.C)	96.8 °F (36.0 °C)
Autoignition Temp.	446 °F (230 °C)
Melting Point	< -76 °F (< -60 °C)
Boiling Point	312.8 °F (156 °C)
Odor	Amine Odor
Density	0.755 (20 °C)
Vapor density	4.9 (Air = 1)
Vapor Pressure	15 - 37.5 mm Hg (20 °C)
Viscosity	4.68X10-3 Pa.s @ 200 K
Water Solubility	2 g/l (20 °C)

PRODUCT SPECIFICATIONS

ASSAY	SPECIFICATIONS
Tri-n-propylamine (Assay)	98.5 %
Water	0.2 %
Platinum-Cobalt Color	20 max
Di-n-propylamine	0.20 %
n-Propylamine	0.10 %
Total Tertiary Amines	1.0 %

STORAGE AND HANDLING

HANDLING RECOMMENDATIONS

- Thoroughly review Safety Data Sheet before handling product.
- Keep containers closed when not in use.
- Open containers slowly to allow any excess pressure to vent.
- Keep away from heat, sparks, flame, or other sources of ignition.
- Protect small containers from physical damage.
- Use proper electrical grounding and bonding procedures when loading, unloading, and transferring.1
- Refer to the U. S. Amines Safety Data Sheet for more information on materials to avoid.
- Use spark-resistant tools.
- Electrical equipment and circuits in all storage and handling areas must conform to requirements of national electrical code (Articles 500 and 501) for hazardous location.

STORAGE RECOMMENDATIONS

Recommended Blanketing	Dry Nitrogen[1,2,3]
Maximum	..... 100 °F (37.8 °C)
Minimum	..... 0 °F (-17.8 °C)
Recommended Pressure	Atmospheric
Bulk Quantities	Outside, detached tanks
Small Containers	Cool, dry, well-ventilated area

Note: See the National Fire Protection Agency (NFPA) #30 "Flammable and Combustible Liquids Code" and consult with qualified fire protection specialists to determine specific storage tank design requirements.

1. Refer to the U. S. Amines Safety Data Sheet for more specific health and environmental information. Safety Data Sheet and Product Descriptions for **Tri-n-Propylamine** are available through your AdvanSix / U. S. Amines sales representative or @ AdvanSix.com. 2. Refer to NFPA #77 "Static Electricity" for proper electrical grounding procedures. 3. See the National Fire Protection Agency (NFPA) #30 "Flammable and Combustible Liquids Code" and consult with qualified fire protection specialists to determine specific storage tank design requirements. 4. Nitrogen blanketing should be used to retain quality. A white precipitate can form when product is exposed to air.

NOTE

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

CONTACT ADVANSIX

Contact AdvanSix to learn more about the benefits of our Chemical Intermediates

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